

Table 4.2 Concrete Mix Proportion for Type V Girder

Material	Quantity (per yd ³)
Cement	423 lbs
New Cem	282 lbs
#67 Stone	1,873 lbs
Sand	1,209 lbs
Water	280 lbs
DCIs	2 Gallons
ADVA	50 oz.
Daravair 1000	12 oz.
Hycol	21 oz.

Note: 1 lb/yd³ = 0.593 kg/m³; 1 fl. oz. = 0.0296 liter

It was reported by the producer that the unit weight of the concrete was 2,412 kg/m³ (150.6 pcf) and the compressive strength of the concrete is as shown in Table 4.3.

Table 4.3 Compressive Strength of Concrete for Type V Girder

Age (days)	1	7	28
Comp. Strength (psi)	4,572	7,293	9,439

Note: 1 MPa = 145 psi or 1 ksi = 6.895 MPa

4.2 Test Set-Up

The girder was supported by elastomeric bearing pads centered at 203 mm (8 in.) from each end of the girder, creating a simple span of 19.4 m (63.67 ft.) for the test. Other details of the test set-up were essentially same as described previously in Section 3.2 for the test of Type III girder.

Based on the experience of testing Type III girder, a protective wall of plywood with a plexi-glass window was placed on each side of the girder at the midspan, as a safety measure during the ultimate load test. The wall kept any flying debris from injuring laboratory personnel and the plexi-glass window allowed viewing of the girder behavior during test.